CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 85-53

NPDES NO. CA0038024

REISSUING WASTE DISCHARGE REQUIREMENTS FOR:

FAIRFIELD-SUISUN SEWER DISTRICT
SOLANO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. The Fairfield-Suisun Sewer District (hereinafter discharger) submitted a Report of Waste Discharge dated November 11, 1983 for reissuance of NPDES Permit No. CA0038024.

2. The discharger presently discharges an average dry weather flow of 11.1 million gallons per day (mgd) from its advanced wastewater treatment plant which has a dry weather design capacity of 15.6 mgd. This plant treats domestic and industrial wastewater from the City of Fairfield, Suisun City and Travis Air Force Base. Treatment consists of primary sedimentation, trickling filters, intermediate clarification, activated sludge, secondary treatment incorporating nitrification and secondary clarification, filtration with the capability of in-line coagulation, disinfection and dechlorination. Sludge is thickened, anaerobically digested, filter pressed and disposed of at a permitted land disposal site.

   Treated effluent is reclaimed for irrigation during the summer by the Solano Irrigation District and the excess is discharged to Boynton Slough, a tributary of Suisun Slough and Suisun Bay. Effluent is discharged during the remainder of the year to Boynton Slough and/or the managed duck ponds of Suisun Marsh. Both Boynton Slough and the duck ponds are waters of the State and United States. The outfall to Boynton Slough is a surface discharge at the shoreline. [Latitude 38 deg., 12 min., 33 sec.] [Longitude 122 deg., 3 min., 24 sec.]

3. The discharge is presently governed by Waste Discharge Requirements, Order Nos. 79-48 and 82-45, which allow discharge into Boynton Slough.

4. The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on July 21, 1982. The Basin Plan contains water quality objectives for Boynton Slough, Suisun Marsh and contiguous waters.

5. The beneficial uses of Boynton Slough, Suisun Marsh, and contiguous water bodies are:

   - Water Contact and Non-contact Recreation
   - Wildlife Habitat for Waterfowl and Migrating Birds
   - Preservation of Rare and Endangered Species
   - Estuarine and Warm Fresh Water Habitat
   - Fish Migration and Spawning
   - Navigation
   - Agricultural Water Supply
   - Fresh Water and Brackish Marshes

6. Discharge to Boynton Slough is contrary to two of the Board's Basin Plan prohibitions:

   a. Prohibition against discharge where wastewater receives less than 10:1 initial dilution in receiving water, and

   b. Prohibition against discharge into dead-end sloughs or similar confined water areas.

7. The Basin Plan states that exception to the above prohibitions will be considered for discharges where:

   a. An inordinate burden would be placed on the discharger relative to beneficial uses protected and an equivalent level of environmental protection can be achieved by alternate means such as an alternative discharge site, a higher level of treatment, and/or improved treatment reliability; or

   b. A discharge is approved as part of a reclamation project; or

   c. It can be demonstrated that net environmental benefits will be derived as a result of the discharge.

   It further provides that: Significant factors to be considered by the Regional Board in reviewing requests for exceptions will be the reliability of the discharger's system in preventing inadequately treated wastewater from being discharged to the receiving water and the environmental consequences of such discharges.

8. The discharger has requested that an exception to the Suisun Marsh dry weather discharge prohibition be considered by the Board, and proposes to discharge into the marsh flows in excess of that to be reclaimed. This request is based upon the discharger's proposal to:

   a. Continue to provide high quality effluent and prepare aeration basins no.'s 4, 5, and 6 for use as emergency aerated storage basins; and optimize operation of the effluent holding ponds;

   b. Continue to provide effluent during the October to May period to assist in optimizing growth of waterfowl food plants in the managed duck ponds of the marsh;

   c. Minimize the discharge to State waters from March 2 through December 1 by continuing to:

      (1) Require the Solano Irrigation District to use the maximum feasible amount of wastewater effluent;

      (2) Provide undiluted effluent for the nursery's turf irrigation;

      (3) Conduct the investigation described in "Proposed Outline Of Investigation And Report On The Most Effective Method Of Maximizing The Use Of Wastewater For Irrigation For Fairfield-Suisun Sewer District, March 1985", then, implement the report's recommendations; and

      (4) Work to increase use of effluent for irrigation and minimize the amount discharged to Boynton Slough during dry weather;

   d. Construct a fresh water marsh when the Boynton-Cordelia Ditch is constructed, if needed, to minimize the adverse effects the discharge could have on waters of the State in the event of a treatment plant upset;

   e. Operate present facilities, and provide additional storage facilities if determined necessary by investigation proposed in f below, to protect the marsh and waters of the State against the discharge of inadequately treated waste in the event of a plant upset; and

f. Conduct an investigation of the effects of the present highly-treated, low-salinity discharge as described in a "Proposed Outline Of Approach And Contents Of Technical Report Documenting Water Quality Conditions And Protection Of Beneficial Uses For The Fairfield-Suisun Sewer District." Then, take all actions needed to assure the discharge will provide a net benefit to the environment.

9. The measures indentified in Finding 8 describe procedures the discharger will follow to assure that a net environmental benefit is or will be provided and that the discharge qualifies for an exception to the prohibitions against discharge under the provisions stated in Finding 7. The discharge is exempt from the prohibitions against discharge into the dead end slough and where wastewater receives less than 10:1 dilution, provided it complies with the requirements of this Order and the actions identified in Finding 8 are taken.

10. An Operations and Maintenance Manual and other relevant documents are maintained by the discharger for purposes of providing plant and regulatory personnel with a source of information describing all equipment, facilities, and recommended operating strategies, process control monitoring, and maintenance activities. In order to remain useful and relevant, these documents should be kept updated to reflect significant changes in plant facilities or activities.

11. This Order serves as an NPDES permit, adoption of which is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

12. The discharger and interested agencies and persons have been notified of the Board's intent to reissue requirements for the existing discharge and have been provided with the opportunity for a public hearing and the opportunity to submit their written views and recommendations.

13. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IS HEREBY ORDERED, that the discharger in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Clean Water Act as amended and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. Discharge into dead-end sloughs and similar confined waters or at any point at which the wastewater does not receive an initial dilution of at least 10:1 is prohibited. An exception to the prohibition is granted provided the discharge affords a net environmental benefit.

2. Bypass or overflow of untreated or partially treated wastewater to waters of the State either at the treatment plant or from any of the collection system and pump stations tributary to the treatment plant is prohibited.

3. The average dry weather flow shall not exceed 15.6 mgd. Average shall be determined over three dry consecutive months each year.

B. Effluent Limitations

1. Effluent discharged shall not exceed the following limits:

	Constituents	Units	Monthly Average	Weekly Average	Maximum Daily	Instantaneous Maximum
a.	Settleable Matter	ml/l-hr	0.1		-	0.2
b.	BOD	mg/l	10	15	20	-
c.	Total Suspended Solids	mg/l	10	15	20	-
d.	Oil & Grease	mg/l	5		10	-
e.	Total Chlorine Residual (1)	mg/l	-	-	-	0.0
f.	Ammonia Nitrogen	mg/l	2.0	3.0	4.0	-
g.	Turbidity	NTU	-	-	10	-

(1) Requirement defined as below the limit of detection in standard methods.

2. The arithmetic mean of the biochemical oxygen demand (5-day, 20 degree centigrade) and suspended solids values, by weight for effluent samples collected in a period of 30 consecutive calendar days shall not exceed 15 percent of the arithmetic mean of the respective values, by weight, for the influent samples collected at approximately the same times during the same period (85 percent removal).

3. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

4. The survival of test organisms acceptable to the Executive Officer in 96-hour bioassays acceptable to the Executive Officer of the effluent shall achieve a median of 90% survival of three consecutive samples and a 90 percentile value of not less than 70% survival based on the ten most recent consecutive samples.

5. Representative samples of the effluent shall not exceed the following limits:(1)

Constituent	Unit of Measurement	6 Month Median	Daily Maximum
Arsenic	mg/l	0.01	0.02
Cadmium	mg/l	0.02	0.03
Total Chromium	mg/l	0.005	0.01
Copper	mg/l	0.2	0.3
Lead	mg/l	0.1	0.2
Mercury	mg/l	0.001	0.002
Nickel	mg/l	0.1	0.2
Silver	mg/l	0.02	0.04
Zinc	mg/l	0.3	0.5
Cyanide	mg/l	0.1	0.2
Phenolic Compounds	mg/l	0.5	1.0
Total Indentifiable Chlorinated Hydrocarbons (2)	mg/l	0.002	0.004

(1) These limits are intended to be achieved through secondary treatment, source control and application of pretreatment standards.

(2) Total Identifiable Chlorinated Hydrocarbons shall be measured by summing the individual concentrations of DDT, DDD, DDE, aldrin, BHC, chlordane, endrin, heptachlor, lindane, dieldrin, polychlorinated biphenyls, and other identifiable chlorinated hydrocarbons.

6. The running median value for the MPN of total coliform in any seven (7) consecutive effluent samples shall not exceed 2.2 coliform organisms per 100 milliliters. Any single sample shall not exceed 23 MPN/100 ml.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam.

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved Oxygen	7.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in the concentration of dissolved oxygen.
b.	Dissolved Sulfide	0.1 mg/l maximum.

c.	pH	Variation from natural ambient pH by more than 0.5 pH units.
d.	Un-ionized Ammoia	0.025 mg/l as N Annual Median 0.4 mg/l as N Maximum

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board or the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 or the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

D. Sludge Disposal Requirements

1. The handling, storage and disposal of sludge shall not cause sludge or sludge pile runoff to be discharged to waters of the State.

2. Surface runoff water shall be diverted and prevented from contacting sludge in the storage area.

3. The discharger shall control and monitor the disposal of sludge to assure compliance with Title 23, Chapter 3, Subchapter 15 of the California Administrative Code and "Manual of Good Practice for Land Spreading of Sewage Sludge", dated April 1983, by the California Department of Health Services, and their amendments.

E. Provisions

1. The requirements prescribed by this Order supersede the requirements prescribed by Orders Nos. 79-48 and 82-45. Orders Nos. 79-48 and 82-45 are hereby rescinded.

2. Where concentration limitations in mg/l are contained in this permit, the following mass emission limitations shall also apply as follows:

   Mass Emission Limit in (lbs/day) = Concentration Limit in mg/l x (8.34) x Actual Flow in mgd averaged over the time interval to which the limit applies.

3. The discharger shall comply with all sections of this Order immediately upon adoption except as stipulated in Provision E.4 below.

4. The discharger shall comply with Prohibition A.1 according to the following schedule:

	Task	Completion Date
a.	Construct a fresh water marsh to receive dry weather flow in excess of reclamation demand and/or wastewater storage basins, to minimize the adverse effects a treatment plant upset would have on State waters if the study identified in Finding 8.f. finds the need for such marsh and basins	Simultaneously with the Boynton-Cordelia Ditch Construction*
b.	Use the maximum feasible amount of wasteweater for irrigation	Forthwith
c.	Commence the investigations described in Findings 8.c.(3) and 8.f. of this Order	June 1, 1985
d.	Submit progress reports quarterly until full compliance is achieved	Beginning July 1, 1985
e.	Prepare basins no.'s 4, 5, and 6 for use as emergency aerated storage basins and optimize the operation of effluent holding ponds to maximize available emergency storage capability	August 1, 1985
f.	Submit draft investigation reports and time schedules described in Findings 8.c.(3) and 8.f.	June 1, 1986

* The construction of a fresh water marsh and/or wastewater storage basins and the date of full compliance will be reviewed when the draft Investigation Reports are submitted.

	Task	Completion Date
g.	Submit final investigation reports and time schedule which are acceptable to the Executive Officer for construction of any needed facilities and/or actions necessary to assure a net benefit to the environment	January 1, 1987
h.	Commence construction of any needed facilities and/or actions	May 1, 1987
i.	Achieve full compliance	July 1, 1988

The discharger shall submit to the Board, on or before each completion date, a report detailing its compliance or noncompliance with the specific schedule date and task. If noncompliance is being reported, the reasons for such noncompliance shall be stated, plus an estimate of the date when the discharger will be in compliance. The discharger shall notify the Board by letter when it has returned to compliance with the time schedule.

5. The discharger shall comply with Order No. 84-60 for implementation of its pretreatment program.

6. The discharger shall review and update its Operations and Maintenance Manual and related documents routinely. The past year's revision, or a letter stating that no changes were needed, shall be submitted to the Regional Board by April 15 of each year.

7. The discharger shall review and update by December 31, annually, its contingency plan as required by Board Resolution No. 74-10. The discharge of pollutants in violation of this Order where the discharger has failed to develop and/or implement a contingency plan will be basis for considering such discharge a willful and negligent violation of this Order pursuant to Section 13387 of the California Water Code.

8. The discharger shall comply with all items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated April 1977. Standard Provision C.2 is revised to read as follows:

(2) The "monthly, or weekly, average" discharge is the total discharge by weight during the month or week of the consecutive calendar day periods, respectively, divided by the number of days in the period that the facility was discharging. Where less than daily samping is required by this permit, the monthly, or weekly, average discharge shall be determined by the summation of all the measured discharges by weight divided by the number of days during the month or week of the consecutive calendar day period when the measurements were made. For other than weekly or monthly periods, compliance shall be based on the averge of all measurements made during the specified period.

9. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

10. This Order expires May 15, 1990. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

11. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on May 15, 1985.

ROGER B. JAMES
Executive Officer

Attachments:
Standard Provisions & Reporting Requirements, April 1977
Self-Monitoring Program
Resolution 74-10
Manual of Good Practice for Land Spreading of Sewage Sludge, April 1983

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Fairfield-Suisun Sewer District

Solano County

NPDES NO. CA0038024

ORDER NO. 85-53

CONSISTS OF

PART A

AND

PART B

PART B

I. DESCRIPTION OF SAMPLING STATIONS

A. INFLUENT

Station	Description
A	At any point in the treatment facilities headworks at which all waste tributary to the system is present and preceding any phase of treatment.

B. EFFLUENT

Station	Description
E-001-A	At the point of discharge from the chlorination facilities.
E-001-S (Sulfonation)	At a point in the outfall following sulfonation.
E-001-F (Following Filtration)	At a point in the treatment process following filtration and prior to chlorination.
E-002	Wet well of the Solano Irrigation District (SID) pump station on Chadborne Road.

C. RECEIVING WATERS (See Illustration A)

Station	Description
C-1 (S11F)	At a point in Boynton Slough within 100 feet downstream from the outfall discharge.
C-2 (S11R)	At a point in Boynton Slough crossing under the tracks of the Southern Pacific railroad.
C-3	At a point in Boynton Slough as shown in Illustration A of this monitoring program.

C-4 (S11)	At the mouth of Boynton Slough as it enters Suisun Slough.
C-5 (S45A)	At the mouth of Sheldrake Slough as it enters Suisun Slough.
C-6 (S3)	At the mouth of Peytonia Slough as it enters Suisun Slough.
C-R-1 (S3R)	At the point in Peytonia Slough crossing under the tracks of the Southern Pacific railroad (reference station).
C-R-2	At the point in Chadborne Slough crossing under the tracks of the Southern Pacific Railroad (reference Station).

NOTE: "S" station numbering system corresponds to Bureau of Reclamation duck club study stationing which is based on SWRCB Delta Water Quality Standards decisions.

D. LAND OBSERVATIONS

Station	Description
P-1 thru P-'n'	Located along the periphery of the treatment plant, at equidistant intervals, not to exceed 500 feet (A sketch showing the locations of those stations will accompany each report).
L-1 thru L-'n'	Located along the periphery of sludge lagoons, drying beds and sludge storage areas.

E. MISCELLANEOUS REPORTING

1. The annual report (Part A, section F.4.) shall include analyses and correlations of data on nutrients, chlorophyll a, phytoplankton populations, for all receiving water stations.

2. Phytoplankton shall be identified by species and quantified in cells per milliliter.

3. Phytoplankton groups shall be tabulated in a format similar to Forms B and C.

4. The monthly report shall include the following:

   a. Coagulant dosage on a daily basis in mg/l and kg/d.

   b. Daily minimum nominal chlorine contact time for which a minimal residual of 1.0 mg/l has been maintained.

   c. The maximum and average tertiary filter loading rates on a daily basis.

5. Monthly observations of periphery of sludge lagoons, drying beds and storage areas shall be made for evidence of seepage or discharge to surface waters.

6. The following flows shall be reported on a daily basis:

   a. Influent
   b. Effluent to outfall
   c. Effluent to duckclubs
   d. Effluent to slough
   e. Effluent to S.I.D.

II. SCHEDULE OF SAMPLING MEASUREMENTS, AND ANALYSIS

A. The schedule of sampling, measurements and analysis shall be that given as Table I.

III. MODIFICATIONS OF PART A DATED JANUARY 1978

Exclusions: Paragraphs C.3, C.4, C.5.c.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolutin No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 85-53.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger and revisions will be ordered by the Executive Officer.

ROGER B. JAMES
Executive Officer

Effective Date_____

Attachments:
Table I
Form A
Form B
Form C

TABLE 1
SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001-A			E-001-S			E-001 -F	E-002		(8) C	
TYPE OF SAMPLE	C-24	C-24	G		C-24	Cont	G	Cont	G	Cont	G	
Flow Rate (mgd)	cont					cont				cont		
BOD, 5-day, 20°C or COD (mg/l & kg/day)	3/W	3/W							D			
Chlorine Residual & Dosage (mg/l & kg/day) (1)				(2) cont		(3) cont			D			
Settleable Matter (ml/l-hr.)		D										
Total Suspended Matter (mg/l & kg/day)	3/W	3/W										
Oil and Grease (mg/l & kg/day)		(4) M										
Coliform (Total or Fecal) (MPN/100 ml) per req't			(5) 7/W									
Fish Tox'y 96-hr. Surv'l in Flow thru Bioassay						(10) M						
Ammonia Nitrogen (mg/l & kg/day)		W									2W	
Nitrate Nitrogen (mg/l & kg/day)		W									2W	
Nitrite Nitrogen (mg/l & kg/day)												
Total Organic Nitrogen (mg/l & kg/day)		W									2W	
Total Phosphate (mg/l & kg/day)		W									2W	
Turbidity (NTU)		7/W						(6) cont			2W	
pH (units)			D			(7) cont					2W	
Dissolved Oxygen (mg/l and % Saturation)			D				D				2W	
Temperature (°C)			D				D				2W	
Apparent Color (color units)												
Secchi Disc (inches)											2W	
Sulfides(if DO <5.0 mg/l) Total & Dissolved (mg/l)			D									
Arsenic (mg/l & kg/day)		3M										
Cadmium (mg/l & kg/day)		3M										
Chromium, Total (mg/l & kg/day)		3M										
Copper (mg/l & kg/day)		3M										
Cyanide (mg/l & kg/day)		3M										
Silver (mg/l & kg/day)		3M										
Lead (mg/l & kg/day)		3M										

TABLE 1 (continued)

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSIS

Sampling Station	A	E-001-A			C	P&L							
TYPE OF SAMPLE		C-24	G	Cont	G	O							
Mercury (mg/l & kg/day)		3M											
Nickel (mg/l & kg/day)		3M											
Zinc mg/l & kg/day)		3M											
Phenolic Compounds (mg/l & kg/day)		3M											
All Applicable Standard Observsations			D		2W	W							
Total Ident. Chlor. Hydro-carbons (mg/l & lb/day)		3M											
Un-ionized ammonia-N (mg/l) (G)					2W								
Total Dissolved Solids (mg/l) (9)					2W								
Chlorophyll-a (ug/l)					2W								
phytoplankton (>5u)					M								
Silica (mg/l					M								
Electrical Conductivity					2W								

LEGEND FOR TABLE

TYPES OF SAMPLES

G = grab sample
C-24 = composite sample - 24-hour
Cont = continuous sampling
O = observation

TYPES OF STATIONS

E = waste effluent stations
A = treatment facility influent stations
C = receiving water stations
P = treatment facilities perimeter stations
L = basin and/or pond levee stations

FREQUENCY OF SAMPLING

E = each occurence
D = once each day
W = once each week
2/W = 2 days per week
5/W = 5 days per week
2/M = 2 days per month
2/M = 2 days per month
2H = every 2 hours
2D = every 2 days
2W = every 2 weeks
3M = every 3 months
Cont = continuous

FOOTNOTES TO TABLE I

(1) Chlorine dosage shall be reported in mg/l and kg/d on a daily basis.

(2) Chlorine residual after adequate contact time has been assured shall be reported in mg/l (max. and min.) on a daily basis along with the time of day the max. and min. occurred.

(3) Chlorine residual in de-chlorinated effluent shall be reported using the attached Form A or equivalent.

(4) Monthly grab samples shall be collected at Station E-001-A as further discussed below.

Oil and grease sampling shall consist of 3 grab samples taken at 8-hour intervals during the sampling day, with each grab being collected in a glass containeer and analyzed as a composite.

If the plant is not staffed 24 hours per day or if the discharge does not occur continuously, then the three grab samples may be taken at approximately equal intervals during the period that the plant is staffed or during the period that discharge is made.

(5) During months in which effluent will not be used for irrigation, sampling frequency may be reduced to 3/W.

(6) Daily max. and min, and percent of time in excess of 5 NTU shall be reported.

(7) pH shall be measured continously and the following data shall be reported: (1) minimum and maximum pH values for each 24-hour period (day), and (2) the monthly average of the daily average of minimum and maximum pH values.

(8) Receiving water samples shall be taken every two weeks at high slack water (Note: If it is impossible to meet this criterion during a given week, sampling shall be performed such that the two sampling periods fall on consecutive days during the proper tidal stages. Sampling days shall be chosen such that the sampling period for each day occurs during daylight hours.)

(9) May be based on electrical conductivity measurement.

(10) Flow through bioassays with rainbow trouts shall be used to determine compliance beginning not later than January 1986.